I. Listing of the Claims

1. through 35. (Cancelled)

36. (Currently Amended) An x-ray optical system [[or]] for analyzing a sample comprising:

an optic which conditions an x-ray beam, the optic defining a near end and a far end and including a first optical element defining a first reflective surface and a second optical element defining a second reflective surface orthogonal to the first reflective surface, the first and second reflective surfaces reflecting x-rays transmitted from an x-ray source to the sample;

an adjustable first aperture which adjusts convergence of the x-ray beam by selecting a portion of the x-ray beam delivered by the [[optical]] optic element, the first aperture being positioned between the optic and the sample, wherein the first aperture includes a fixed portion and a movable portion that is movable relative to the fixed portion, the first aperture being adjusted by moving the movable portion relative to the fixed portion to change a size or shape of the x-ray beam; and

a second aperture which maximizes flux incident on the sample by occluding a portion of the x-ray beam to reduce [[the]] background radiation around the sample, the second aperture being positioned between the first aperture and the sample.

37. (Currently Amended) The x-ray optical system of claim 36 wherein the first aperture is a diaphragm.

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Currently Amended) The x-ray optical system of claim [[38]] 36 wherein the fixed portion is a fixed blade and the movable portion is a movable blade.

42. (Previously Presented) The x-ray optical system of claim 36 wherein the optic is a two-dimensional optical element.

43. (Previously Presented) The x-ray optical system of claim 36 wherein at least one reflective surface has a substantially elliptic shape.

44. (Currently Amended) The x-ray [[optic]] optical system of claim 43 wherein both reflective surfaces have a substantially elliptic shape.

45. (Previously Presented) The x-ray optical system of claim 43 wherein one reflective surface has a substantially elliptic shape and the other reflective surface has a substantially parabolic shape.

46. (Previously Presented) The x-ray optical system of claim 36 wherein at least one reflective surface has a substantially parabolic shape.

47. (Previously Presented) The x-ray optical system of claim 46 wherein both reflective surfaces have a substantially parabolic shape.

48. (Currently Amended) The x-ray optical system of claim 41 wherein the fixed blade and the movable blade are positioned at or near a distal portion of the ~~x-ray reflective~~ optic relative to the source.

49. (Previously Presented) The x-ray optical system of claim 41 wherein the fixed blade and the movable blade are each substantially L-shaped.

50. (Previously Presented) The x-ray optical system of claim 41 wherein the movable blade is movable from a high-convergence position to a low-convergence position.

51. (Currently Amended) The x-ray optical system of claim 50 wherein in the low-convergence position, the movable blade occludes x-rays reflected from a far portion of the ~~x-ray reflective~~ optic.

52. (Previously Presented) The x-ray optical system of claim 36 wherein the first optical element is a first multilayer optic and the second optical element is a second multilayer optic.

53. (Previously Presented) The x-ray optical system of claim 52 wherein the first multilayer optic and the second multilayer optic have graded d-spacing.

54. (Previously Presented) The x-ray optical system of claim 53 wherein the first multilayer optic and the second multilayer optic have depth graded d-spacing.

55. (Previously Presented) The x-ray optical system of claim 53 wherein the first multilayer optic and the second multilayer optic have laterally graded d-spacing.

56. (Previously Presented) The x-ray optical system of claim 36 wherein the first optical element is a first x-ray reflective crystal and the second optical element is a second x-ray reflective crystal.

57. (Currently Amended) The x-ray optical system of claim 36 wherein the first aperture is positioned between the source and the first and second optical elements.

58. (Currently Amended) The x-ray optical system of claim 36 wherein the first aperture is attached to the far end of the optic.

59. (Currently Amended) The x-ray optical system of claim 36 wherein the first aperture is attached to the near end of the optic.

60. (New) The x-ray optical system of claim 41, wherein the fixed blade occludes x-rays reflected from a near portion of the optic and the movable blade occludes x-rays reflected from a far portion of the optic.